

as a subject whose Alzheimer's disease-related cognitive impairment is responsive to treatment with a cholinomimetic drug.

4. (Twice Amended) A method for genotyping a patient sample with respect to apoE4 allele in a clinical trial of a drug for the treatment of cognitive impairments, said method comprising:

(a) identifying a patient already diagnosed with said cognitive impairments, or as being predisposed to acquire or to be at risk for said cognitive impairments; and

(b) determining the presence of *apoE4* gene alleles in said patient, wherein the genotype of said patient sample with respect to apoE4 allele in a clinical trial of said drug allows the effects of said drug to be compared according to apoE4 genotype.

5. (Twice Amended) A method for genotyping a patient sample with respect to apoE4 allele in a clinical trial of a drug for the treatment of Alzheimer's disease, said method comprising:

(a) identifying a patient already diagnosed with said Alzheimer's disease or as being predisposed to acquire or to be at risk for said disease; and

(b) determining the presence of *apoE4* gene alleles in said patient, wherein the genotype of said patient sample with respect to apoE4 allele in said clinical trial of a drug for the treatment of said Alzheimer's disease allows the effects of said drug to be compared according to apoE4 genotype.